Application No.: 09/682,329

Amendment dated: November 14, 2005 Reply to Office Action of June 14, 2005 Attorney Docket No.: 21295.0039

- 9. (Original) The arrangement as defined in claim 8, wherein the routing unit has multiple outputs by way of which the microscope is controllable.
- 10. (Original) The arrangement as defined in claim 7, wherein the electronic acquisition system has multiple analog/digital converters that are connected to an electronic circuit.
- 11. (Original) The arrangement as defined in claim 10, wherein the electronic circuit is configured as an FPGA.
- 12. (Original) The arrangement as defined in claim 7, wherein the adjustment functions are arranged on the display in a panel box in the form of multiple click buttons.

13. (Currently Amended) A software program on a data carrier for controlling analytical and adjustment operations of a microscope, wherein the following processes are carried out:

depicting a data set in graphical form on a display associated with the microscope; selecting at least one position in the graphical form of the data set that depicts the image of the specimen;

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identifying automatically a region from the data set and the selected position; and selecting an adjustment function for execution of an adjustment operation wherein the adjustment operation modifies at least one image sensing parameter and the image sensing parameters consist essentially of zoom, image centering, detection sensitivity, illuminating light output, spectral composition of the illumination, polarization of the illumination, spectral detection of the identified region, and rotation of the identified region; and

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performing an analytical or adjustment operation or both on a structure of interest, wherein the analytical operation is based on the geometry of the structure of interest or on the data set of the structure of interest determined by means of pattern recognition.

automatic focusing of a structure of interest within the identified image of the specimen.

- 14. (Canceled)
- 15. (Canceled)
- 16. (Canceled)
- 17. (Canceled)

computer readable medium

18. (Original) The software program as defined in claim 13, comprising: automatic focusing of a structure of interest within the identified image of the specimen;

and centering of the structure of interest within the image of the specimen.